

APPLICANT(S): GOTHAIT, Hanan et al.  
SERIAL NO.: 10/724,399  
FILED: December 1, 2003  
Page 2

### AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled.

The listing of the claims will replace all prior versions, and listing, of claims in the application:

#### Listing of the Claims

1. **(Currently Amended)** A method for ~~three-dimensional~~ printing of a three-dimensional model in layers, said method comprising:

selectively and separately dispensing a first interface material and a second interface material from a printing head within a given layer, said first interface material and said second interface material being different;

each of said first interface material and said second interface material comprising photopolymer materials; and

curing said first and second interface materials using radiation.

2. **(Currently Amended)** A method according to claim 1, wherein at least one of said first interface material and said second interface material includes reactive acrylates ~~and is curable by the application of radiation.~~

3. **(Currently Amended)** A method according to claim 1, comprising ejecting said first interface material and said second interface material in ~~[[a]]~~ the given layer in different mix formulations to form a specified type of material.

APPLICANT(S): GOTHAIT, Hanan et al.  
SERIAL NO.: 10/724,399  
FILED: December 1, 2003  
Page 3

4. (Cancelled)

5. (Previously Presented) A method according to claim 3, wherein one of said mix formulations of said first interface material and said second interface material forms a model layer.

6. (Previously Presented) A method according to claim 3, wherein one of said mix formulations of said first interface material and said second interface material forms a support layer.

7. (Previously Presented) A method according to claim 3, wherein one of said mix formulations of said first interface material and said second interface material forms a release layer.

8. (Currently Amended) A system for ~~three-dimensional~~ printing of a three-dimensional model in layers, said system comprising:

a printing head for selectively and separately dispensing a first interface material and a second interface material within a given layer, said first interface material and said second interface material being different;

each of said first interface material and said second interface material comprising photopolymer material; and

a source of radiation for curing of at least one of said interface materials.

9. (Previously Presented) A system according to claim 8, wherein at least one of said first interface material and said second interface material includes reactive acrylates.

APPLICANT(S): GOTHAIT, Hanan et al.  
SERIAL NO.: 10/724,399  
FILED: December 1, 2003  
Page 4

10. (Original) A system according to claim 8, wherein said printing head is an ink-jet printing head.
11. (Original) A system according to claim 8, wherein said second interface material is curable.
12. (Currently Amended) A system according to claim 8, wherein said first interface material and said second interface material are ejected in [[a]] the given layer in different mix formulations to form different types of materials.
13. (Previously Presented) A system according to claim 8, wherein said radiation is selected from a group consisting of ultra-violet radiation, infra-red radiation and E-beam.
14. (Previously Presented) A system according to claim 12, wherein said mix formulations of said first interface material and said second interface material form model layers.
15. (Previously Presented) A system according to claim 12, wherein said mix formulations of said first interface material and said second interface material form support layers.
16. (Previously Presented) A system according to claim 12, wherein said mix formulations of said first interface material and said second interface material form release layers.
17. (Currently Amended) A method for ~~three-dimensional~~ printing of a three-dimensional model in layers ~~component~~, said method comprising:

APPLICANT(S): GOTHAI, Hanan et al.  
SERIAL NO.: 10/724,399  
FILED: December 1, 2003  
Page 5

selectively and separately dispensing a first interface material and a second interface material within a given layer from at least one printing head, said first interface material and said second interface material being different;  
wherein at least one of said first interface material and said second interface material comprises a photopolymer material including reactive acrylates.

18. (Previously Presented) A method according to claim 17, wherein said first interface material and said second interface material are dispensed by one or more inkjet printing heads.

19. (Previously Presented) A method according to claim 17, further comprising curing said photopolymer material using radiation.

20. (Previously Presented) A method according to claim 17, further comprising curing said first interface material and said second interface material using radiation.

21. (Previously Presented) A method according to claim 19, wherein said radiation is selected from a group consisting of ultra-violet radiation, infra-red radiation and E-beam.

22. (Previously Presented) A method according to claim 20, wherein said radiation is selected from a group consisting of ultra-violet radiation, infra-red radiation and E-beam.

23. **(Currently Amended)** A method according to claim 17, wherein said photopolymer material forms the three-dimensional model ~~component~~.

24. (Previously Presented) A method according to claim 17, wherein said photopolymer material forms a model layer.

25. (Previously Presented) A method according to claim 17, wherein said photopolymer material forms at least part of a support layer.

APPLICANT(S): GOTHAIT, Hanan et al.  
SERIAL NO.: 10/724,399  
FILED: December 1, 2003  
Page 6

26. **(Currently Amended)** A system for ~~three-dimensional~~ printing of a three-dimensional model in layers ~~component~~, said system comprising:

at least one printing head for selectively and separately dispensing a first interface material and a second interface material within a given layer, said first interface material and said second interface material being different;

wherein at least one of said first interface material and said second interface material comprises a photopolymer material including reactive acrylate; and

a source of radiation for curing at least one of said first interface material and second interface material.

27. **(Previously Presented)** A system according to claim 26, wherein said at least one printing head is an ink-jet printing head.

28. **(Currently Amended)** A system according to claim 26, wherein said first interface material and said second interface material are ejected in ~~[[a]]~~ the given layer in different mix formulations.

29. **(Previously Presented)** A system according to claim 28, wherein said mix formulations form different types of material.

30. **(Previously Presented)** A system according to claim 28, wherein said mix formulations form a model layer.

31. **(Previously Presented)** A system according to claim 28, wherein said mix formulations form a support layer.

32. **(Previously Presented)** A system according to claim 28, wherein said mix formulations form a release layer.

APPLICANT(S): GOTHAIT, Hanan et al.  
SERIAL NO.: 10/724,399  
FILED: December 1, 2003  
Page 7

33. (Previously Presented) A system according to claim 26, wherein said radiation is selected from a group consisting of ultra-violet radiation, infra-red radiation and E-beam

34. (Currently Amended) A method according to claim 1 [[4]], wherein curing said first and second interface materials comprises using ultra-violet radiation, infra-red radiation or E-beam.